

ENGLISH

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name: Kovac's Reagent

Product Number: 80271-87001-\$080401-\$080413-\$080415-\$080435

1.2 Identified uses of the relevant substance or mixture and uses advised against

Identified uses relevant: Professional uses, Health services, scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: Liofilchem®

Address: Via Scozia, 64026 - Roseto degli Abruzzi (TE)

Telephone number: 085/8930745

Fax number: 085/8930330

E-mail address: liofilchem@liofilchem.com

1.4 Emergency telephone number

+39 02-66101029 (Centro Antiveleni Niguarda Cà Granda - Milano).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flam. Liq. 3, Flammable liquids (Category 3); H226

Skin Corr. 1B, Skin corrosion (Category 1B); H314

Eye Dam. 1, Serious eye damage (Category 1); H318

STOT SE 3, Specific target organ toxicity - single exposure (Category 3); H335, H336

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word

Danger

Hazard statement(s)

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, flames and other sources of ignition. No smoking.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician

Supplemental Hazard Statements none

2.3 Other hazards – none

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous substances

CAS n°	EC n°	Index n°	Registration number REACH	Concentration	Classification according Regulation (EC) No 1272/2008
Isobutyl alcohol					
78-83-1	201-148-0	603-108-00-1	-	75.0%	Flam. Liq. 3; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; H226, H315, H318, H335, H336
Chloridric acid 37%					
7647-01 -0	231-595-7	-	-	25.0%	Met. Corr. 1; Skin Corr. 1B; STOT SE 3; H290, H314, H318 H335
4-Dimethylaminobenzaldehyde					
100-10-7	202-819-0			0,5 g/l	Skin Sens. 1B; H317

Additional Information:

For the full text of H codes and R phrases mentioned in this section, see section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash with plenty of soap and water. Consult a physician.

In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

If swallowed: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

no data available

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Oxides of Carbon.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Remove all sources of ignition. Ensure adequate ventilation.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided

6.3 Metodi e materiali per il contenimento e per la bonifica

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For information on safe handling, see Chapter 7.

For information on personal protection equipment see Chapter 8.

For disposal information see Chapter 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Do not eat or drink in work areas, wash hands after use; and remove contaminated clothing and protective equipment before entering areas where you eat.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature, see the product label.

7.3 Specific end uses

Apart from the uses described in section 1.2 are not covered other specific uses.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

- Isobutyl alcohol

Derived No Effect Level (DNEL)			
Application Area	Routes of exposure	Health effect	Value
Worker DNEL, longterm	inhalation	Long-term local effects	310 mg/m3
Consumer DNEL, longterm	Oral	Long-term systemic effects	
Consumer DNEL, longterm	inhalation	Long-term local effects	mg/m3
Predicted No Effect Concentration (PNEC)			
Fresh water		0,4 mg/l	
Sea water		0,04 mg/l	
Aquatic intermittent release		11 mg/l	
Fresh water sediment		1,52 mg/kg	
Sea sediment		0,152 mg/kg	
Soil		0,07 mg/kg	
Sewage treatment plant		10 mg/l	
Chloridric acid 37 %			
IOLEV (UE)		Short-term value: 15 mg/m3, 10 ppm Long-term value: 8 mg/m3, 5 ppm	

8.2 Exposure controls

Exposure controls

Handle in accordance with good hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eyes/Face Protection: It is advisable wear safety goggles

Skin protection: Handle with gloves

Body Protection: Use protective clothes in accordance with laboratory good practices.

Respiratory protection: It is advisable wear dust mask.

Environmental exposure control

For information relating to environmental precautions, see chapter 6.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Form Liquid
Color Yellow

Odour

No data available

Odour Threshold

No data available

pH

No data available

Melting point/ freezing point

No data available

Initial boiling point and boiling range

> 35°C

Flash point

> 23°C - < 60°C

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Upper / lower flammability or explosive limits
Vapour pressure
Vapour density
Relative density
Water solubility
Partition coefficient: n-octanol/water
Autoignition temperature
Decomposition temperature
Viscosity
Explosive properties
Oxidizing properties

No data available
No data available
No data available
No data available
soluble
No data available
Product not selfigniting
No data available
No data available
No data available
No data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Alkali metals, Oxidizing agents, Peroxides.

10.6 Hazardous decomposition products

No decomposition when used for the intended uses.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- **Isobutyl alcohol (CAS NO. 78-83-1)**

Acute toxicity

LD50 Oral - Rat - female - 3.350 mg/kg
LC50 Inhalation - Rat - male and female - 4 h - 24,6 mg/l – vapor
LD50 Dermal - Rabbit - female - 2.460 mg/kg

Skin corrosion/irritation

Skin – Rabbit
Result: Irritating to skin. - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit
Result: Corrosive - 24 h

Respiratory or skin sensitization

No data available

Germ cell mutagenicity : negative

Carcinogenicity No data available

Reproductive toxicity No data available

Specific target organ toxicity - May cause respiratory irritation. - Respiratory Tract
May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

- **Chloridric acid 37% (CAS NO. 7647-01 -0)**

Acute toxicity No data available

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Strong caustic effect.
Strong irritant with the danger of severe eye injury.
Causes serious eye damage.

Inhalation:

Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Harmful if inhaled. May cause respiratory tract irritation.

May cause respiratory irritation
Respiratory or skin sensitization No data available
Germ cell mutagenicity : No data available
Carcinogenicity No data available
Reproductive toxicity No data available
Specific target organ toxicity - May cause respiratory irritation. - Respiratory Tract
Specific target organ toxicity - repeated exposure No data available
Aspiration hazard No data available

Additional information: RTECS: no data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

1-Naphthol effects are: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 4,1 - 4,7 mg/l - 96 h

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

This mixture contains no substances evaluated PBT or vPvB

12.6 Endocrine disrupting properties

The mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Not be disposed of with household waste. Do not discharge into sewers.

The product must be specially treated adhering to official regulations administrative. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. INFORMAZIONI SUL TRASPORTO

14.1 UN number

ADR/RID: UN 2924 IMDG: UN 2924 IATA: UN 2924

14.2 UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isobutyl alcohol - Chloridric acid)

IMDG: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isobutyl alcohol - Chloridric acid)

IATA: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Isobutyl alcohol - Chloridric acid)

14.3 Transport hazard class(es)

ADR/RID: 3 (8) IMDG: 3 (8) IATA: 3 (8)

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of European Parliament and of the Council Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Commission Regulation (EU) No. 453/2010 amending Commission Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

The product is classified, coded and labeled in accordance with EU Regulation on Hazardous Materials.

15.2 Chemical Safety Assessment

This product has not been made a chemical safety assessment.

16. OTHER INFORMATION

Text of H code(s) and R-phrases(s) mentioned in Section 3

Flam. Liq. 3, Flammable liquids (Category 3);
Skin Corr. 1B, Skin corrosion (Category 1B);
Eye Dam. 1, Serious eye damage (Category 1);
STOT SE 3, Specific target organ toxicity - single exposure (Category 3);
H226 Flammable liquid and vapour
H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage
H315 Causes skin irritation
H318 Causes serious eye damage
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP: Regulation concerning the classification, labelling and packaging of substances and mixtures, Regulation (EC) No. 1272/2008.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
IATA: International Air Transport Association
IMDG: International Maritime Code for Dangerous Goods
CL50: Middle lethal concentration of individuals in essay
DL50: The median lethal dose that causes death in 50% of individuals in essay
PBT: Persistent, bioaccumulative and toxic substance
REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No. 1907/2006
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
vPvB: Very persistent and very bioaccumulative substance

Training advice

The product must be used by qualified personnel. It is recommended to provide basic training with regard to safety and health at work to ensure proper handling of the product.

Further information

This sheet replaces any previous edition.
The information in this document is based on the present state of our knowledge. The user must ensure the accuracy and completeness of such information in relation to the specific use intended.
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